

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.

Network Working Group
Request for Comments: **3508**
Category: Informational

O. Levin
RADVISION
April 2003

H.323 Uniform Resource Locator (**URL**) Scheme Registration

Status of this Memo

This memo provides information for the Internet community. It does not specify an Internet standard of any kind. Distribution of this memo is unlimited.

Copyright Notice

Copyright (C) The Internet Society (2003). All Rights Reserved.

Abstract

ITU-T Recommendation **H.323** version 4 introduced an **H.323**-specific Uniform Resource Locator (**URL**). This document reproduces the **H323-URL** definition found in **H.323**, and is published as an RFC for ease of access and registration with the Internet Assigned Numbers Authority (IANA).

Conventions used in this document

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in BCP 14, **RFC 2119** [2].

Table of Contents

1. Introduction.....	2
2. URL Scheme Formal Syntax Definition and Character Encoding.....	2
3. Intended Usage.....	3
4. Applications and/or protocols, which may use H.323 URL scheme..	3
5. Security Considerations.....	3
6. IANA Considerations.....	4
References.....	4
Acknowledgments.....	5
Author's Address	5
Full Copyright Statement.....	6

Levin

Informational

[Page 1]

RFC 3508

H.323 URL Scheme

April 2003

1. Introduction

ITU-T Recommendations **H.323** [3] and H.225.0 [4] define a system for multimedia communications services over packet based networks. H.225.0 [4] defines an alias type for carrying any standard Uniform Resource Locator (**URL**). **H.323** version 4 [3] introduced an **H.323-specific URL**, which may be used to resolve the **address** of a network entity to which **H.323** calls may be directed.

This document reproduces the **H323-URL** definition found in ITU-T recommendation **H.323** [3] and is published as an RFC for ease of access and IANA registration.

2. **URL** Scheme Formal Syntax Definition and Character Encoding

The **H.323 URL** is defined in ABNF as shown below. Note that it utilizes the Core Rules specified in section 6.1 of [2].

```

H323-URL      = "h323:" address [ url-parameters ]
address       = user / "@" hostport / user "@" hostport
user          = 1*(%x21-24 / %x26-3F / %x41-7F / escaped)
               ; The symbols "%", "@", and symbols with
               ; a character value below 0x21 may be
               ; represented as escaped sequences.

hostport      = host [ ":" port ]
host          = hostname / IPv4address / IPv6reference
hostname      = *( domainlabel "." ) toplabel [ "." ]
domainlabel   = alphanum / alphanum *( alphanum / "-" ) alphanum
toplabel      = ALPHA / ALPHA *( alphanum / "-" ) alphanum
IPv4address   = 1*3DIGIT "." 1*3DIGIT "." 1*3DIGIT "." 1*3DIGIT
IPv6reference = "[" IPv6address "]"
IPv6address   = hexpart [ ":" IPv4address ]
hexpart       = hexseq / hexseq "::" [ hexseq ] / "::" [ hexseq ]
hexseq        = hex4 *( ":" hex4 )
hex4          = 1*4HEXDIG
port          = 1*DIGIT
url-parameters = *( ";" url-parameter )
url-parameter  = 1*(%x21-24 / %x26-3A / %x3C-7F / escaped)
               ; Specific parameter definitions are for
               ; further study.
               ; The symbols "%", ";", and symbols
               ; with a character value below 0x21 may be
               ; represented as escaped sequences.

alphanum      = ALPHA / DIGIT
escaped       = "%" HEXDIG HEXDIG

```

The host is case insensitive.

The "user" is a Unicode [8] string that shall be UTF-8 [7] encoded

and then escaped as necessary. In the "user" field, the characters with a numeric value below 0x80 are case insensitive and the characters with a numeric value above or equal to 0x80 are case sensitive.

The character set and case sensitivity of the "**url-parameter**" is specified in each parameter definition.

3. Intended Usage

The **H.323 URL** is intended to help an entity resolve the **address** of another **H.323** entity, where an "entity" may be a user, a device, or a service. The "user" portion of the **URL** specifies an alias for the entity, without carrying any information about the location of the entity. The "hostport", on the other hand, is the domain name of an Endpoint, Gatekeeper, Border Element, or other functional element to which **H.323** calls may be directed or for which services may be performed.

4. Applications and/or protocols, which may use **H.323 URL** scheme

H.323 URLs may be carried by other protocols, such as SIP [6] or TRIP [9]. **H.323** URLs may be also contained within web pages or within XML data, which may be utilized by **H.323** entities in order to initiate calls or perform services.

5. Security Considerations

When an **H.323 URL** is carried within H.225.0 [4] messages, security is addressed by the H.235 security framework [5]. When an **H.323 URL** carried within other protocols (such as SIP [6]), the security is addressed within the corresponding protocol.

In general, security, as it relates to the usage and carriage of the **H.323** URLs, is considered as an issue that should be addressed within scope of **H.323** or other relevant protocols and is not within the scope of this document.

Levin

Informational

[Page 3]

RFC 3508

H.323 URL Scheme

April 2003

6. IANA Considerations

The purpose of this document is serving as a reference point for the purposes of registering the **H.323 URL** scheme with IANA.

Having the **URL** registered with IANA will ensure that there is no duplication of the **URL** scheme "h323". This document reproduces the exact H323-**URL** definition as published in ITU-T Recommendation **H.323** [3].

Registration Template

URL scheme name: h323

URL scheme syntax: Section 2 of **RFC 3508**

Character encoding considerations: Section 2 of **RFC 3508**

Intended usage: Section 3 of **RFC 3508**

Applications and/or protocols which use this scheme: Section 4 of **RFC 3508**

Interoperability considerations: None. (Section 2 of **RFC 3508** contains the first version of "h323" **URL** definition.)

Security considerations: Section 5 of **RFC 3508**

Relevant publications: [3] and [4]

Contact: Orit Levin, orit@radvision.com

Author/Change Controller: IESG

References

- [1] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, **RFC 2119**, March 1997.
- [2] Crocker, D., Editor, and P. Overell "Augmented BNF for Syntax Specifications: ABNF", **RFC 2234**, November 1997.
- [3] ITU-T Recommendation H.323v.4 "Packet-based multimedia communications systems", November 2000.
- [4] ITU-T Recommendation H.225.0 "Call signalling protocols and media stream packetization for packet-based multimedia communication systems", November 2000.

Levin

Informational

[Page 4]

RFC 3508

H.323 URL Scheme

April 2003

- [5] ITU-T Recommendation H.235 "Security and Encryption for H Series (**H.323** and other H.245 based) multimedia terminals", November 2000.
- [6] Rosenberg, J., Schulzrinne, H., Camarillo, G., Johnston, A., Peterson, J., Sparks, R., Handley, M. and E. Schooler, "SIP: Session Initiation Protocol", **RFC 3261**, June 2002.

- [7] Yergeau, F., "UTF-8, a transformation format of ISO 10646", RFC 2279, January 1998.
- [8] ISO/IEC 10646-1:1993, Information technology "Universal Multiple-Octet Coded Character Set (USC)" Part 1: Architecture and Basic Multilingual Plane.
- [9] Rosenberg, J., Salama, H. and M. Squire, "Telephony Routing over IP (TRIP)", RFC 3219, January 2002.

Acknowledgments

This document is prepared and posted on behalf of SG-16 ITU-T. I wish to thank Paul E. Jones, Robert Callaghan and Cullen Jennings for their comments and active help.

Author's Address

Orit Levin
RADVISION
266 Harristown Road
Glen Rock, NJ USA

Phone: +1-201-689-6330
EMail: orit@radvision.com

Levin

Informational

[Page 5]

RFC 3508

H.323 URL Scheme

April 2003

Full Copyright Statement

Copyright (C) The Internet Society (2003). All Rights Reserved.

This document and translations of it may be copied and furnished to others, and derivative works that comment on or otherwise explain it or assist in its implementation may be prepared, copied, published and distributed, in whole or in part, without restriction of any kind, provided that the above copyright notice and this paragraph are included on all such copies and derivative works. However, this

document itself may not be modified in any way, such as by removing the copyright notice or references to the Internet Society or other Internet organizations, except as needed for the purpose of developing Internet standards in which case the procedures for copyrights defined in the Internet Standards process must be followed, or as required to translate it into languages other than English.

The limited permissions granted above are perpetual and will not be revoked by the Internet Society or its successors or assigns.

This document and the information contained herein is provided on an "AS IS" basis and THE INTERNET SOCIETY AND THE INTERNET ENGINEERING TASK FORCE DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY THAT THE USE OF THE INFORMATION HEREIN WILL NOT INFRINGE ANY RIGHTS OR ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Acknowledgement

Funding for the RFC Editor function is currently provided by the Internet Society.

Levin

Informational

[Page 6]


[Web](#) [Images](#) [Groups](#) [News](#) [Froogle](#) [more »](#)

[Advanced Search](#)
[Preferences](#)

Web

 Results 1 - 10 of about 37,200 for "**netmeeting**" [http url](#). (0.38 seconds)

CallTo URL Syntax (NetMeeting: Platform SDK)

... The CallTo URL syntax, introduced in **NetMeeting** 3, allows you to specify an extensible address for placing all forms of **NetMeeting** calls from your Web page. ...

msdn.microsoft.com/library/en-us/netmeet/nm3_114o.asp - 17k - [Cached](#) - [Similar pages](#)

launch netmeeting from a url?

... I am > wondering if there is a url syntax that would kick off **netmeeting** - > assuming it was already installed on the client pc. <http://www.meetingbywire.com> ...

www.mcse.ms/message1043286.html - 42k - [Cached](#) - [Similar pages](#)

Guide To The Best NetMeeting Resources 10 Online Resources To ...

... TrackBack URL for this article: <http://www.masternewmedia.org/cgi-bin/mt-tb.cgi/> 623. November 17, 2003 11:38 PM, ... The Death Of Microsoft **NetMeeting**. ...

[www.masternewmedia.org/2003/03/31/guide_to_](http://www.masternewmedia.org/2003/03/31/guide_to_the_best_netmeeting_resources_10_online_resources_to_learn_mor...)

[the_best_netmeeting_resources_10_online_resources_to_learn_mor...](#) - 54k - [Cached](#) - [Similar pages](#)

Selected Videoconferencing Bookmark Bibliography

... users of Microsoft's **NetMeeting** and people who are trying to learn tips and tricks about **NetMeeting** and Microsoft's Internet Explorer. URL: [http://www.netmeet ...](http://www.netmeet...)

www.kuzmich.com/handouts/video_bookmarks.html - 12k - [Cached](#) - [Similar pages](#)

ils Liste Des Serveurs Ils Pour Netmeeting. - [Translate this page]

... ils.chi-town.com, USA, 212.256.352.124, [http://www.chi-town ...](http://www.chi-town...) ncci.net, lieu du serveur, adresse IP, url du serveur. ils.netmeeting.co.uk, lieu du serveur, adresse ...

www.allocam.com/ils.php - 21k - Oct 24, 2004 - [Cached](#) - [Similar pages](#)

SecurityFocus HOME Vulns Info: Microsoft Netmeeting CALLTO URL ...

... VULNERABILITIES, Microsoft **Netmeeting** CALLTO URL Buffer Overflow Vulnerability. ...

www.securityfocus.com/bid/7639 - 28k - [Cached](#) - [Similar pages](#)

Hyperlinks

... The **NetMeeting** activeX component has a callto method (essentially the same as the callto: url mention above ... <http://yourwebserver.com/aspeeddial.cnf>. ...

www.meetingbywire.com/HyperlinkstoNetMeeting.htm - 27k - [Cached](#) - [Similar pages](#)

Linux software migrate2Linux

... Url: [http://www.gnomemeeting ...](http://www.gnomemeeting...) that allows you to make audio and video calls to remote users with H.323 hardware or software (such as Microsoft **Netmeeting**). ...

migrate2linux.n-ix.com/groups/linuxsoft.php?group=114 - 31k - [Cached](#) - [Similar pages](#)

Hypertext Style: Cool URIs don't change.

... big button "school closings" which takes me to [http://www.whdh ...](http://www.whdh...) Hall of flame — story 2: Microsoft **Netmeeting**. ... extent, but - you do have to keep the URL the same ...

www.w3.org/Provider/Style/URI.html - 19k - [Cached](#) - [Similar pages](#)

RE: [NetMeeting] [url H.323]

... 44 (0)7775 886442 E-Mail: [mailto:\[EMAIL PROTECTED\]](mailto:) Internet: [http://www.madge ...](http://www.madge...) 26 November 1999 14:11 To: Subject: RE: [NetMeeting] [url H.323 ...

www.mail-archive.com/ **netmeeting**-discussion@meetingbywire.com/msg01630.html - 7k -
[Cached](#) - [Similar pages](#)

Goooooooooooooogle ►

Result Page: 1 2 3 4 5 6 7 8 9 10 **Next**

Free! Get the Google Toolbar. [Download Now](#) - [About Toolbar](#)



"netmeeting" http url **Search**

[Search within results](#) | [Language Tools](#) | [Search Tips](#) | [Dissatisfied? Help us improve](#)

[Google Home](#) - [Advertising Programs](#) - [Business Solutions](#) - [About Google](#)

©2004 Google